

□ □ □ □ □

leukotomy [1]

脳室内側の白質を切開する手術 leukotomy 脳室内側の白質を切開する手術

第三波浪潮 The Third Wave

爲諸侯之君，而爲四夷之主：to be "a leader to the Greeks and a despot to the barbarians, to look after the former as after friends and relatives, and to deal with the latter as with beasts or plants"

A decorative horizontal bar consisting of a series of small, evenly spaced rectangular blocks, likely made of wood or a similar material, arranged in a repeating pattern.

_____ [2] _____

leukotomy _____

Leukotomy

Leukotomy

1 personalities □ mental diseases □

2 leukotomy 10 leukotomy 10 leukotomy 10

3. **personality** \sqcap **intelligence** \sqcap **Walter Freeman** \sqcap **personality** \sqcap **intelligence** [3]

personality □ intelligence □ personalities □ mental diseases □ personality □ intelligence □ intelligence □ personality □ intelligence □ personality □ intelligence □

personality □ intelligence □ personalities □ mental diseases □
personality □ intelligence □

Leukotomy

Turing Test Nature AlphaGo Zero superhuman
superhuman generic human

Leukotomy 人类の脳を破壊する Nature で AlphaGo Zero が超人間の棋士に勝つ
研究が peer review で Peer review が認められた [4]。

leukotomy

AlphaGo Zero vs Superhuman

Nature 2016 AlphaGo Zero 2016 AlphaGo Zero 2 superhuman performance 2 superhuman 2016 generic human performance superhuman 2016

AlphaGo Zero 击败 AlphaGo Master 之后，superhuman 级别的棋艺已经可以在围棋上发挥出 generic 和 superhuman 级别的游戏水平。

A horizontal row of fifteen empty square boxes, intended for children to draw or color in.

游戏超级人类 game superhuman

AlphaGo Zero သည် superhuman မြတ်ဆုံးစွဲပေါ်လေ့ရှိခဲ့သူများ
မြတ်ဆုံးစွဲများ AlphaGo Zero ဖြစ်ပါသည်

AlphaGo Zero が超人間的棋力を達成するまでのプロセス

Deepmind [5]

AlphaGo Zero が AlphaGo Master を破った[6]。AlphaGo Master は 16 該当で AlphaGo Zero は 18 該当。AlphaGo Zero は 14-16-45 の成績を残す。

11 Nature Magazime 『AlphaGo』Deepmind 『AlphaGo Zero』
『AlphaGo Master』

2) AlphaGo Zero یکی از این نمونه‌هاست که local trap را در خود دارد. این مسئله این است که AlphaGo Zero چگونه می‌تواند superhuman شود.

AlphaGo Zero AlphaGo Master AlphaGo Master AlphaGo Master AlphaGo Master [7] Nature AlphaGo Zero AlphaGo Master deep-learning AlphaGo Master

AlphaGo Zero [8] superhuman AlphaGo Zero

AlphaGo は generic human と対戦する際に Deepmind の
AI が何を学んだかを理解するには、AlphaGo が何を学んだか
を理解する必要があります。AlphaGo が何を学んだか
を理解するには、

AlphaGo AlphaGo [9] AlphaGo AlphaGo

图灵机 Turing Machine 阿尔法围棋 AlphaGo 阿尔法零 AlphaGo Zero □ AlphaGo

Master AlphaGo Zero AlphaGo Zero

◎◎◎◎◎：“Go gaming is strictly defined within a very small space. Industrial automations are typically designed in well controlled environments, but not strictly defined. Car driving is regulated, but the environment is not well controlled”□

SAE level 5 SAE level 4 SAE level 4 SAE level 4 SAE level 4

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“**中華人民共和國**”**中華人民共和國**

[10]

图灵机 Turing Machine 图灵完备性 Universal computation
Universal approximation theorem 图灵完备性
图灵完备性

Technological Singularity

A horizontal row of fifteen empty square boxes, intended for children to draw or color in.

A decorative horizontal bar consisting of a series of small, evenly spaced rectangular boxes, likely a placeholder for a logo or a decorative element.

1949 白質切開術 leukotomy 白質切開術は、精神疾患の治療に用いられる手術である。

Turing Test 人工智能 AI A Modern Approach 人工智能与机器学习 Wind Tunnel approach 人工智能与机器学习 Nature AlphaGo Zero 人工智能 superhuman 人工智能 Technological Singularity In Math We Trust “数学万能论” [11] [12]

卡爾·波普爾 Karl Popper

[13]

Occam's Razor

Occam's Razor Leukotomy

Gu Test A Progressive Measurement Of Generic Artificial Intelligence

Gu Test [14]

Gu Test [15]

Gu Test

Gu Test

Gu Test

Gu Test [14]

Gu Test [15]

Gu Test [16]

Gu Test

Gu Test

Gu Test commonsense

Gu Test

Gu Test

Gu Test

〔17〕

〔18〕

〔19〕

Chinese room

dataset □ SQuAD □ CoQA □ QuAC □ GLUE □ SST-2 □ MRPC □ MNLI □ STS-B □ Chinese room □

NLVR² Natural Language for Visual Reasoning for Real-world testset
GLUE generic

Testsets 人工智能与机器学习AI: A Modern Approach

guideline judgement

_____ Chinese room _____

The Third Wave

质量管理体系 Total Quality Management 质量管理

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Leukotomy AI: A Modern Approach

“AlphaGo Zero” AI: A Modern Approach [20]

人工智能与AI: A Modern Approach

Figure 1. A schematic diagram of the experimental setup for the measurement of the absorption coefficient.

A decorative horizontal bar consisting of a series of small, evenly spaced rectangular blocks, likely made of wood or a similar material, arranged in a repeating pattern.

Chinese room

judgement

[21]

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1989 『◎◎◎◎◎◎◎』“◎◎◎◎◎◎”『◎◎◎◎◎◎』
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◎◎ AlphaGo ◎◎◎◎◎◎◎◎◎◎◎◎ [22]◎◎ Socratic ◎◎◎◎◎◎◎◎
◎◎◎◎◎◎

◎◎◎◎◎◎ 2015 ◎ Bohunt Chinese School ◎ BBC ◎ Are Our Kids Tough Enough
? ◎◎◎◎◎◎

◎◎◎◎◎◎◎◎◎◎◎◎◎◎◎◎◎◎ 2012 ◎ PISA ◎◎◎◎◎◎◎◎
◎ 2015 ◎ 2018 ◎ PISA ◎◎◎◎◎◎◎◎◎◎◎◎◎◎◎◎◎◎◎◎◎◎◎◎◎
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◎◎◎◎◎◎◎◎◎◎◎◎Bohunt Chinese School ◎◎◎◎◎◎◎◎
Bohunt ◎◎◎◎◎◎ [23]◎◎◎◎◎◎◎◎◎◎◎◎

◎◎◎◎◎◎◎◎◎◎◎◎ PISA ◎◎◎◎◎◎◎◎◎◎◎◎◎◎◎◎◎◎
◎◎◎◎◎◎◎◎◎◎◎◎

Bohunt ◎◎◎◎◎◎ Confucianism ◎◎◎◎◎◎◎◎◎◎◎◎◎◎◎◎
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Bohunt ◎◎◎◎◎◎

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◎◎◎◎◎◎◎◎◎◎◎◎ discipline ◎ competition ◎◎◎◎◎◎◎◎
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Discipline ◎◎◎◎◎◎◎◎◎◎◎◎ Bohunt ◎◎◎◎◎◎◎◎◎◎◎◎
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◎◎◎◎◎◎ competition ◎◎◎◎◎◎◎◎◎◎◎◎◎◎◎◎◎◎
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◎◎◎◎◎◎◎◎◎◎“◎◎◎◎◎◎”“◎◎◎◎◎◎”
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..... [24].....

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..... [25].....Leukotomy
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Technological Singularity
AI: A Modern Approach

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..... Karl Popper
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The Development of Liberal Arts and Sciences
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[1] ..... AI: A Modern Approach .....  
..... “Aristotle... was the first to formulate a precise set of laws governing  
the rational part of the mind.”(On page 5).....

..... Wind Tunnel approach .....  
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[2] .....  
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Leucotomy in England and Wales, 1942-1954

[3] Leucotomy in England and Wales, 1942-1954

Renato M.E. Sabbatini

Even lobotomy's proponents admitted that only one third of the operated patients would improve, while one-third remained the same, and one-third got worst

<http://www.cerebromente.org.br/n02/historia/lobotomy.htm>

one third would improve

one-third remained the same

one-third got worst

Leucotomy in England and Wales, 1942-1954

[4] Leucotomy in England and Wales, 1942-1954

Leucotomy in England and Wales, 1942-1954

AlphaGo Zero

superhuman

generic

human

AlphaGo Zero

[5] Cracking Go

Deep Blue

AlphaGo

AlphaGo

[6] <http://www.alphago-games.com/>

AlphaGo Zero

AlphaGo Zero

<https://www.101weiqi.com/chessbook/player/38348/>

[7] AlphaGo Master

AlphaGo Master

AlphaGo Master

[8] <http://www.alphago-games.com/>

Full Strength of Alphago Zero, i.e. Final Form

40 Blocks

Not Full Strength of Alphago Zero

Alphago Zero

[9] AlphaGo Master

Algorithmic Thinking

Algorithmic Thinking

AlphaGo چیست؟ AlphaGo Google چیست؟ AlphaGo Zero چیست؟ AlphaGo چیست؟ Human level artificial intelligence چیست؟ AlphaGo چیست؟

Algorithmic Thinking

[10] Universal approximation theorem چیست؟ Turing Machine چیست؟

[11] In God We Trust چیست؟ God چیست؟ In Math We Trust چیست؟

In Math We Trust چیست؟

[12] In Math We Trust چیست؟

[13] In Math We Trust چیست؟

[14] In Math We Trust چیست؟

[15] In Math We Trust چیست؟

In Math We Trust چیست؟

In Math We Trust چیست؟

[16] In Math We Trust چیست؟

[17] 1819 Ferdinand Schweikart چیست؟

1830 Ferdinand Schweikart

Ferdinand Schweikart

[18] 1830·“”

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[19] 1830

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wikipedia

[20] 1830

1830

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[21] 1830

mainframe personal computer smartphone smartphone

IT

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100 100 60

“我就是‘我’”——我就是我自己的主人，“我就是”——我就是我自己的主人，我就是我自己的主人。

“我就是想让你知道，你不是唯一一个被我爱着的人。”

[23] “上海·BBC BBC 上海”<http://shanghai.xinmin.cn/xmsq/2016/04/18/29861595.html>

[24] 『蒙古國憲法』“總理”一詞被修改為“總統”。·蒙古國憲法“總理”一詞被修改為“總統”

